

REMARKS

In the Office Action dated September 20, 2006, claims 16-23 were rejected under 35 U.S.C. § 102(e) as being anticipated by Miyazaki et. al. (U.S. Patent No. 6,774,705; hereinafter “Miyazaki”), and claims 1-15, 24 and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable given Miyazaki in view of Lin et al. (U.S. Patent No. 6,836,166; hereinafter “Lin”). Applicant respectfully traverses and requests reconsideration.

Claims 16-23 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Miyazaki. Generally, Miyazaki teaches a semiconductor integrated circuit that is provided with control circuits (FIG. 14; VDDGEN, VBBGEN, FRQGEN) for controlling a power supply voltage (e.g., N12), a substrate bias voltage (e.g., N13) and a clock frequency (e.g., N11) for the semiconductor integrated circuit (LSI) or multiple blocks thereof (FIG. 24; LSI20-LSI40). As shown, for example, in the embodiment of Miyazaki’s FIG. 14, the control circuitry includes a monitor (MON) that monitors the power supply voltage (N12), substrate bias voltage (N13) and clock frequency (N11). A comparator (CMP) compares the clock frequency with a reference signal (REF) and causes either an up signal (N15) or a down signal (N16) to be issued, thereby causing a decoder (DEC) to issue a decoder signal (N17) that causes corresponding adjustments in the control circuits (VDDGEN, VBBGEN, FRQGEN). (See also, col. 10, lines 15-42) In another embodiment, the integrated circuit (LSI) can be divided into separate blocks (LSI20-LSI40) each requiring correspondingly separate power supply voltages, body bias voltages and clock frequencies (FIG. 24; col. 13, lines 29-45).

In contrast, instant claim 16 as amended above recites, among other things, “a frequency monitor operably coupled to the plurality of computing devices [and] operative to receive an output frequency indicator from at least one of the plurality of computing devices.” This is illustrated in instant FIG. 3 (and accompanying description) where the frequency monitor 142

receives an output frequency indicator 140 from at least one of the multiple threshold voltage devices 108. As noted above, to the extent that Miyazaki teaches anything comparable to the presently claimed frequency monitor, it is Miyazaki's monitor (MON). However, as also described above, Miyazaki's monitor does not receive any kind of output frequency indicator from at least one of the plurality of computing devices being supplied (i.e., Miyazaki's integrated circuit (LSI)), but instead receives a clock signal (N11) from the clock control circuit (FRQGEN). Stated another way, Miyazaki does not disclose a frequency monitor coupled to the plurality of computing devices in the same manner as presently claimed, resulting in a structural distinction neither taught or suggested by Miyazaki. For this reason, Applicant respectfully submits that Miyazaki fails to anticipate instant claim 16, which claim is therefore in suitable condition for allowance.

Regarding claims 17-19, these claims are dependent upon, and therefore incorporate the limitations of, independent claim 16. Given this dependency, and that the dependent claims recite additional patentable subject matter, Applicant respectfully submits that claims 17-19 are also in condition for allowance for the same reasons given above regarding claim 16.

Regarding claims 20-23, Applicant notes that these claims were rejected for the same reasons presented with regard to claims 16-19 to the extent that claims 20-23 allegedly "recite similar limitations to [claims 16-19]." Notwithstanding the fact that claims 20-23 are directed to patentable methods, as opposed to the device claims of claims 16-19, Applicant further notes that the reasons for patentability of claims 16-19 discussed above apply equally to claims 20-23. In particular, claim 20 recites at least one of a plurality of computing devices generating an output frequency indicator that is subsequently used to generate an frequency offset value that, in turn, is used to updated a supply voltage and body bias voltage applied to the plurality of computing

devices. As noted above, Miyazaki is silent with regard to any signal from the computing devices (i.e., Miyazaki's integrated circuit (LSI)) being used in this manner. For this reason, Applicant respectfully submits that claim 20 and claims 21-23, to the extent that they dependently include the limitations of claim 20, are not anticipated by Miyazaki and are therefore in condition for allowance.

Claims 1-15, 24 and 25 stand rejected given Miyazaki in view of Lin. Regarding claim 1, Applicant notes that this independent claim has been amended above to recite the master controller generating a second supply voltage indicator and a second body bias indicator based on a difference between optimized performance and actual performance of the plurality of computing devices. Support for this limitation may be found, for example, in paragraph 0029. Miyazaki fails to teach generating any signals (voltages or frequencies) based on performance of the plurality of computing devices—indeed, the only feedback provided by Miyazaki comes from his control circuits (VDDGEN, VBBGEN, FRQGEN), not the LSI device being supplied. Regarding claim 10, Applicant notes that these independent claims have been amended above to include limitations similar to those described above, e.g., a frequency monitor configured to receive an output frequency indicator from at least one of the plurality of computing devices. (Applicant further notes that claims 2 and 11 have been canceled to reflect the incorporation of these dependent claims into their respective parent claims 1 and 10, and claims 3 and 12 have been amended above to reflect the necessary dependencies in light of the cancellation of claims 2 and 11.) For the reasons presented above, Applicant submits that Miyazaki fails to teach these additional limitations, nor is this deficiency remedied by the application of Lin. Indeed, Lin is silent with regard to a frequency monitor, much less a configuration of such a monitor to receive an output frequency indicator from at least one of a plurality of computing devices. For this

reason, Applicant respectfully submits that the combination of Miyazaki in view of Lin fails to establish prima facie obviousness of claims 1 and 10 to the extent that the cited combination fails to teach each and every limitation of the claimed inventions. As such, claims 1 and 10 are in condition for allowance.

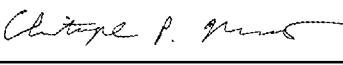
Regarding claims 3-9 and 12-15, these claims are dependent upon, and therefore incorporate the limitations of, independent claims 1 and 10, respectively. Given this dependency, and that the dependent claims recite additional patentable subject matter, Applicant respectfully submits that claims 3-9 and 12-15 are also in condition for allowance for the same reasons given above regarding claim 1 and 10.

Finally, claim 24 has been amended above to incorporate the limitation of claim 25, namely that each of the computing devices comprise first and second computing devices arranged in a push-pull configuration in which an output of the first computing device is coupled to the input of the second computing device. It has been alleged that now-amended claim 24 recites limitations similar to one or more of claims 16-23, and that the limitations of now-amended claim 24 are therefore met by the combination of Miyazaki in view of Lin. However, Applicant disputes the assertion that any of claims 16-23 recite limitations that are even remotely akin to the limitations of claim 24, i.e., the computing devices arranged in a push-pull configuration. Thus, to the extent that none of the claim rejections provided with regard to claims 16-23, nor any of the other claims, discusses the claimed computing devices arranged in push-pull configuration as set forth in claim 24, Applicant respectfully submits that the instant Office Actions fails to recite any proper basis for the rejection of claim 24. As such, claim 24 may be passed to allowance.

Applicant respectfully submits that the claims are in condition for allowance and respectfully request that a timely Notice of Allowance be issued in this case. The Examiner is invited to contact the below listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

Respectfully submitted,

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